AM/FM STEREO RECEIVER

# KR-V87R/KR-V77R

# INSTRUCTION MANUAL

KENWOOD

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## Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.
We appreciate your patronage and take pride in the long tradition of quality components.
So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features, and system-connection considerations, so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability, we have sought to anticipate your needs and desires.
**Keep this manual handy for future reference.**

### For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.
Model _____ Serial Number _____

### Unpacking

Unpack the unit carefully and make sure that all accessories and cables are put aside so they will not be lost.
Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

The basic operations of the KR-V87R and KR-V77R are the same. The Instruction Manual can commonly be used.

### Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820 – 22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

### Accessories

FM T shaped indoor antenna ..... 1
AM loop antenna ..... 1
Loop antenna stand ..... 1
75Ω/300Ω antenna adaptor ..... 1
Battery ("AA") for remote control unit ..... 2
Remote control unit (RC-70) ..... 1

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# Before applying power

**Important!**

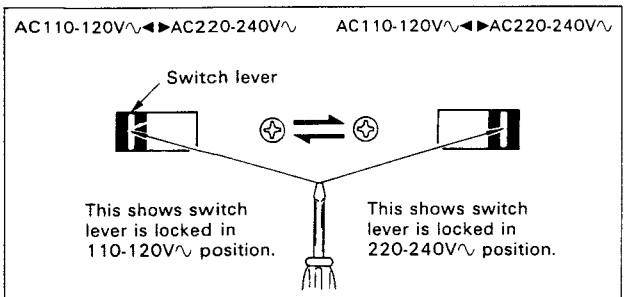
**U.S.A. and Canada**
Units shipped to the U.S.A. and Canada are designed for operation on 120 V AC only.
These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows, should be disregarded.

**All other countries**
Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

### AC voltage selection

These units operates on 110-120 volts or 220-240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the units was shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

**Note:**
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.


AC110-120V∿◄►AC220-240V∿
AC110-120V∿◄►AC220-240V∿
Switch lever
This shows switch lever is locked in 110-120V∿ position.
This shows switch lever is locked in 220-240V∿ position.
Move switch lever to match your line voltage with a small screw driver or other pointed tool.

**AC voltage selector switch**

# Safety precautions

**Safety precaution for AC plug (For U.S.A. and Canada)**
**CAUTION:** TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

**WARNING:**
TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

| | |
|---|---|
| | CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. |
| | THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS. |
| | THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE. |

⚠ **Caution: Read this page carefully to keep your safety.**

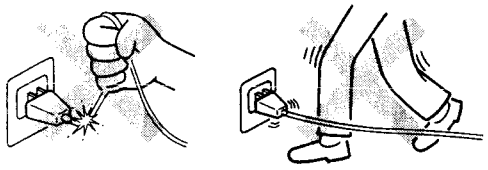
# Important safeguards

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** – The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

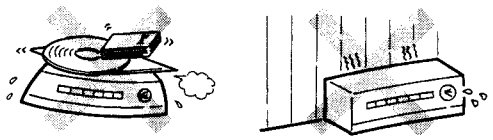
2. **Power-cord protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

   Never pull or stretch the cord.

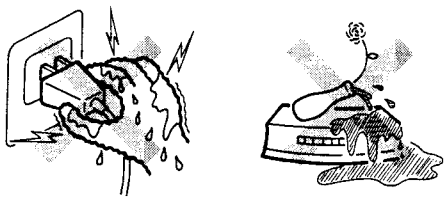


3. **Grounding or polarization** – Precautions that should be taken so that the grounding or polarization means of this unit is not defeated.

4. **Ventilation** – The unit should be situated so that its location or position does not interfere with its proper ventilation.
   To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.
   Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.



5. **Water and moisture** – The unit should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

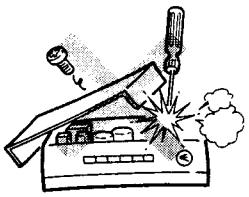


6. **Temperature** – The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

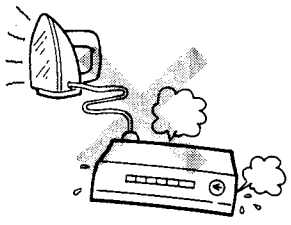
7. **Heat** – The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.

8. **Electric shock** – Care should be taken so that object do not fall and liquid are not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.

9. **Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



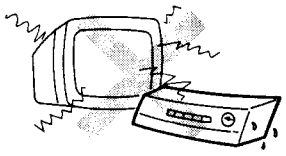
10. **AC outlets** – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.



The maximum capacities indicated for the AC outlets on the rear panel of the this unit are as follows.

SWITCHED outlets : 200W

**11. Magnetic fields** – Keep the units away from a source of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.

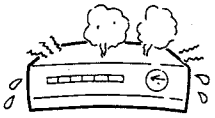


**12. Cleaning** – Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzine, etc. to clean the cabinet. Use a clean dry cloth.

**13. Nonuse periods** – The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.

**14. Abnormal smell** – If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service station.

**POWER OFF!**



**15. Damage requiring service** – The unit should be serviced by qualified service personnel when:
**A.** The power-supply cord or the plug has been damaged; or
**B.** Objects have fallen, or liquid has been spilled into the unit; or
**C.** The unit has been exposed to rain; or
**D.** The unit does not appear to operate normally or exhibits a marked change in performance; or
**E.** The unit has been dropped, or the enclosure damaged.

**16. Servicing** – The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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**17. Outdoor antenna grounding** – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70 – 1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.

[a] Use No.10 AWG (5.3 mm²) copper, No.8 AWG (8.4 mm²) aluminum, No.17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as a ground wire.

[b] Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 – 6 feet (1.22 – 1.83 m) apart.

[c] Mount antenna discharge unit as close as possible to where lead-in enters house.

[d] Use jumper wire not smaller than No.6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j).

**18. Power lines** – An outdoor antenna should be located away from power lines.

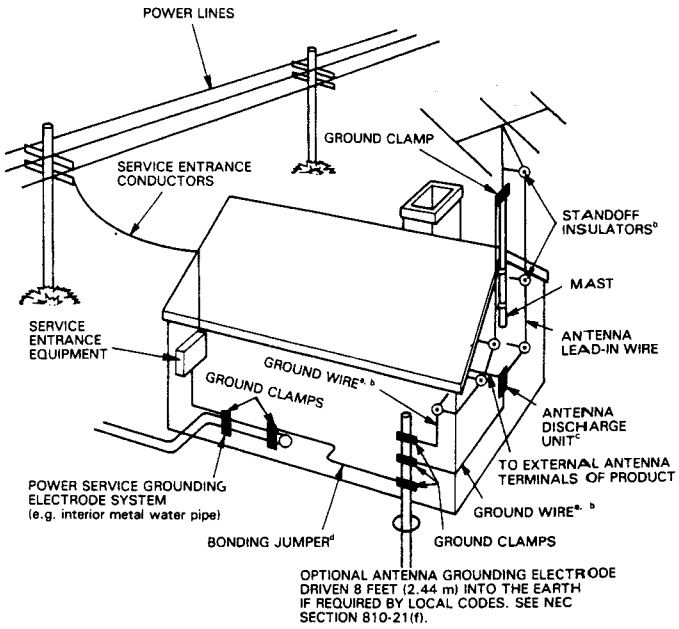
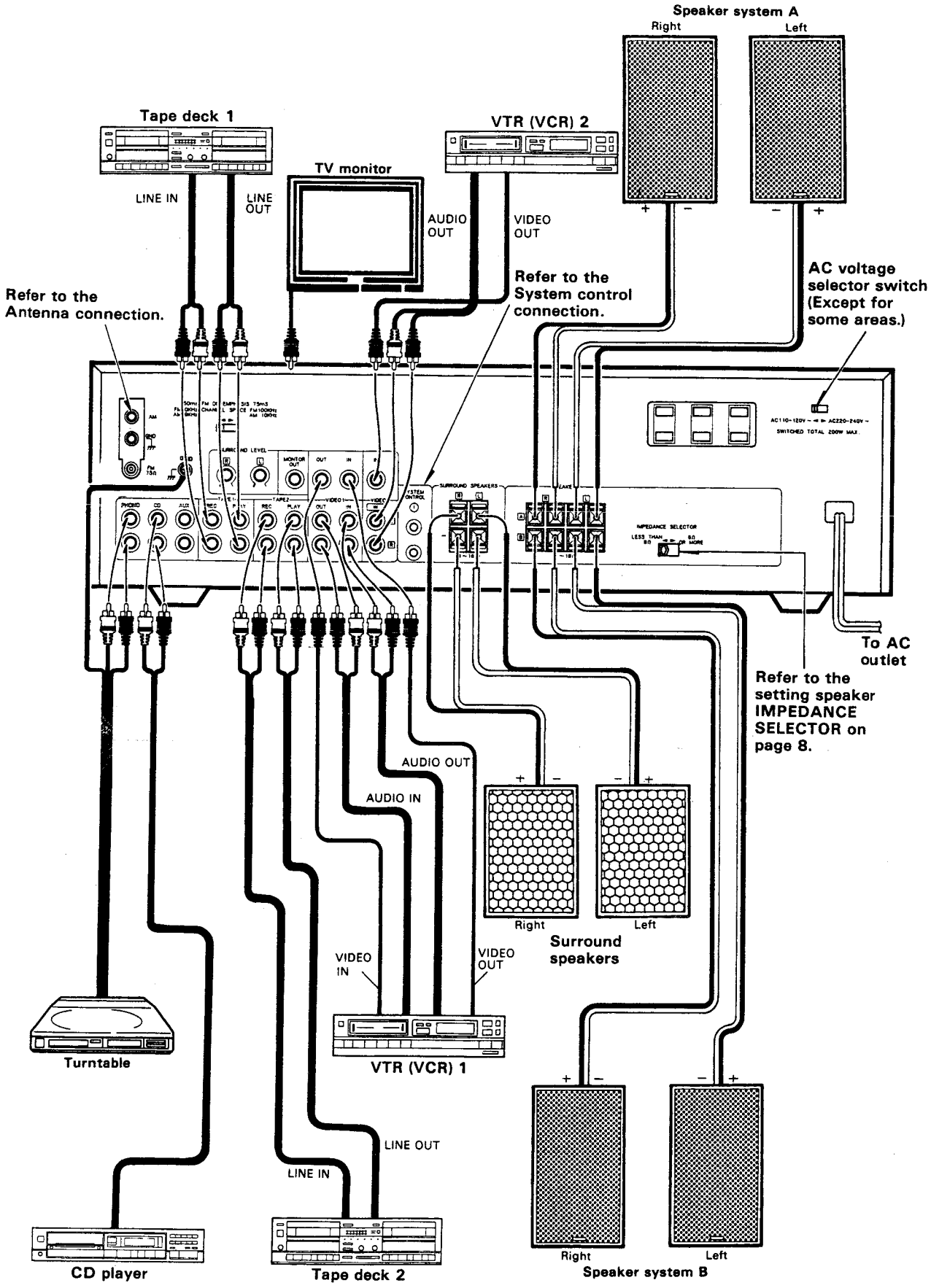

POWER LINES
GROUND CLAMP
SERVICE ENTRANCE CONDUCTORS
STANDOFF INSULATORS[b]
MAST
SERVICE ENTRANCE EQUIPMENT
ANTENNA LEAD-IN WIRE
GROUND WIRE[a, b]
GROUND CLAMPS
ANTENNA DISCHARGE UNIT[c]
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
GROUND WIRE[a, b]
BONDING JUMPER[d]
GROUND CLAMPS
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES. SEE NEC SECTION 810-21(f).

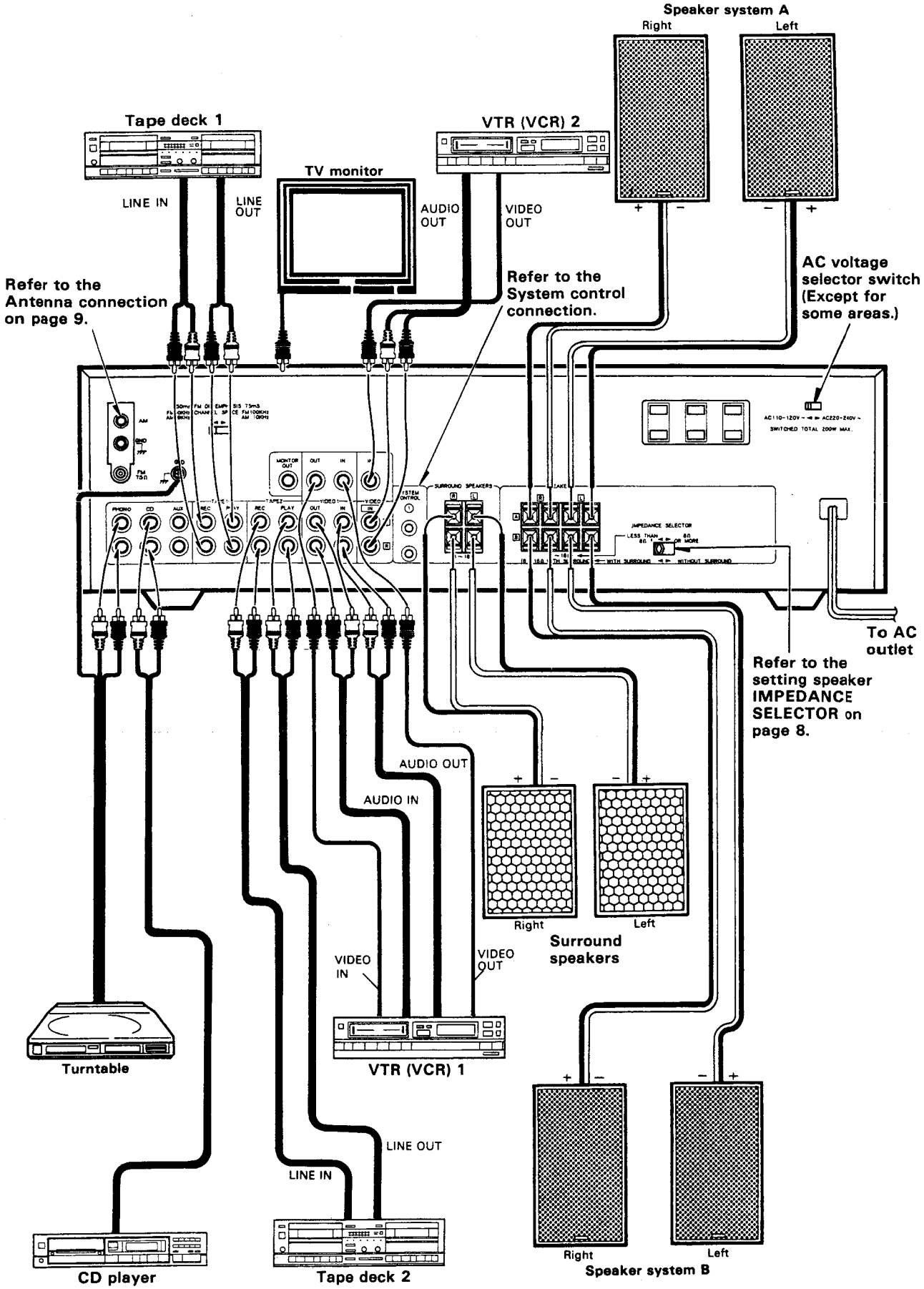
FIGURE
EXAMPLE OF ANTENNA GROUNDING ACCORDING TO THE NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 –"RADIO AND TELEVISION EQUIPMENT"

**Notes:**
1. Item 3 is not required except for grounded or polarized equipment.
2. Item 10 is not required except for units provided with AC outlets.
3. Item 17 and 18 are not required except for units provided with antenna terminals.

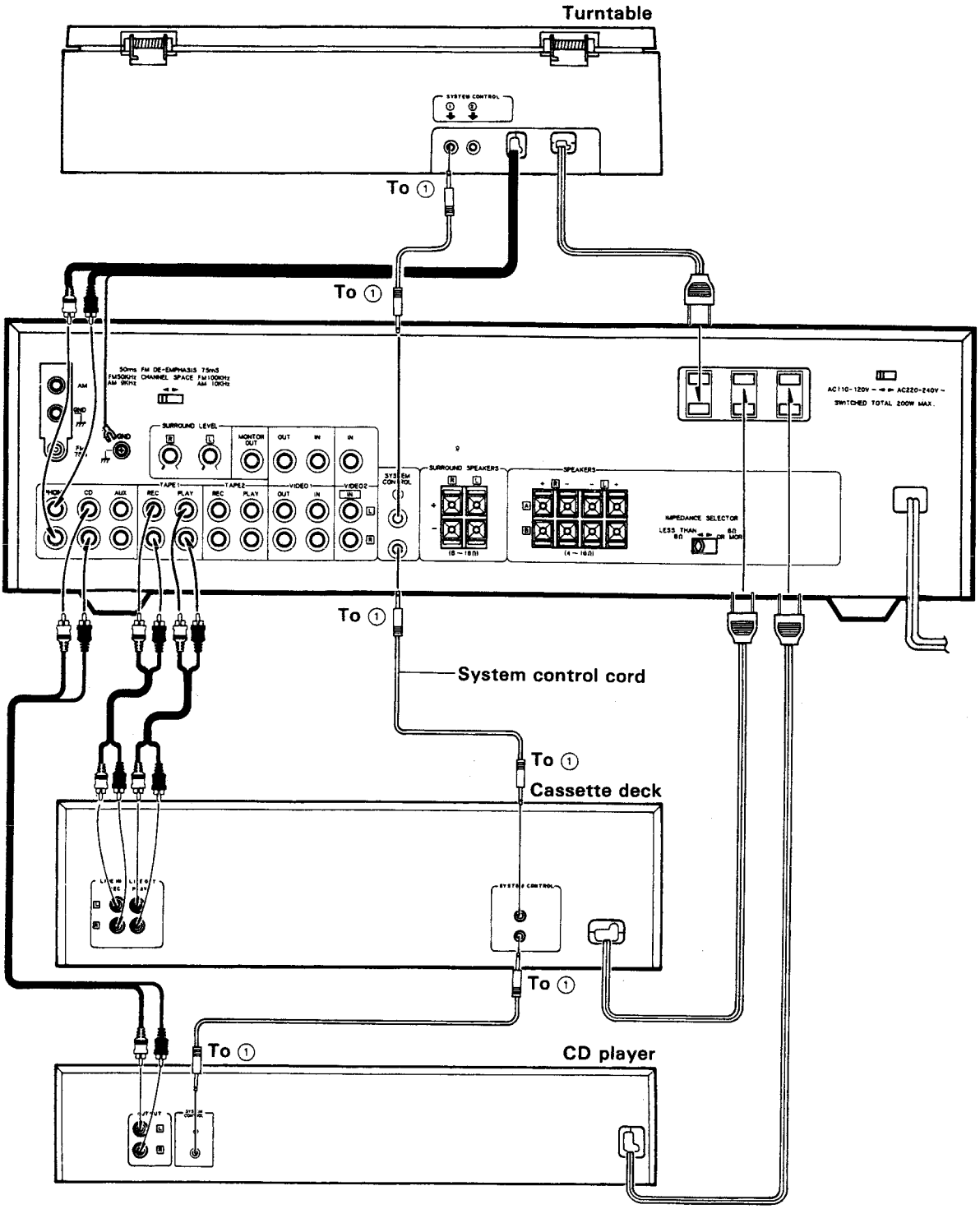
# System connections for KR-V87R



# System connections for KR-V77R



# System control connection for KR-V87R and KR-V77R




### SYSTEM CONTROL terminals

When the turntable, tape deck or CD player are used in connection with the receiver, they can be operated from the remote control unit of the receiver when their SYSTEM CONTROL terminals are connected to the SYSTEM CONTROL terminals. (Ordinary audio cable connections are also required.) For details, refer to the operating instructions for the remote control unit on page 21 and system control operation on page 20.

## Front SPEAKERS terminals

This unit has two pairs of speaker terminals, SPEAKERS A and SPEAKERS B.

**Connecting one speaker system**

Connect speakers rated at 4 ohms or more to the SPEAKERS A terminals.

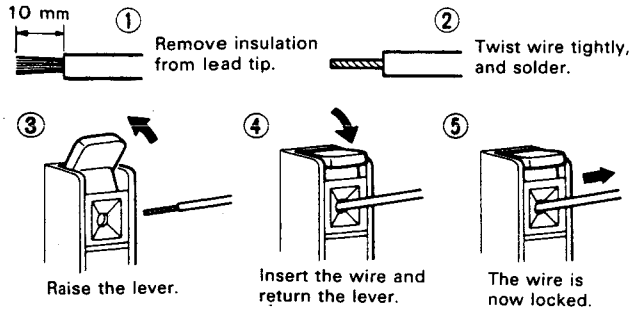
**Connecting two speaker systems**

To connect an additional pair of speakers, use the B terminals. In this case, each speaker must be rated at 8 ohms or more.

**Connection with speaker cords**

1. Connect the left speaker to the [L] SPEAKERS terminals and the right speaker to the [R] SPEAKERS terminals.
2. Be careful that wires do not contact adjacent terminals.
3. Be sure to connect the (+) terminal of the speaker to the (+) terminal of the unit.
   Never short the (+) and (−) terminals.

Erroneous connection of speakers may result in poor imaging or unnatural sound.

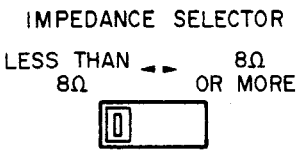



**Speaker lead connection**

## Setting speaker IMPEDANCE SELECTOR

When connecting one pair of speakers to the SPEAKERS A or B terminals, set the IMPEDANCE SELECTOR according to the speaker impedance.

When two pairs of speakers are connected to both the A and B terminals, match the speaker impedance to the speakers with the lowest.




**When surround sound is required with the KR-V77R, be sure to set the IMPEDANCE SELECTOR to the "LESS THAN 8Ω" position for the speakers connection.**

**Note:**

1. During speaker system connection and operation of SPEAKER IMPEDANCE SELECTOR, set the POWER switch to OFF.
2. Check that the connected lead wires of the speaker systems do not contact with other jacks or terminals.

## SURROUND SPEAKER terminals

Connect speakers having an impedance of between 8 ohms and 16 ohms, and place them to the left and right behind the listening position.

## PHONO jacks

The PHONO jacks of the unit can accept a turntable with an MM type phono-cartridge.

Your stereo turntable has RCA pin-plug cords that is terminated with phono plugs. Plug the left channel plug into the [L] and the right channel plug into the [R] PHONO jacks.

If the turntable has a ground wire, connect it to the unit's GND terminal to avoid hum.

## CD jacks

These jacks are used to connect a CD player.

## AUX jacks

These jacks are used to connect other high level signal sources, such as audio output of a video disc player, etc.

## GND (Ground)

For maximum safety and minimum interference connect the GND terminal to a good earth ground if practicable. A good earth ground is a metal stake driven into moist earth. However, never use a gas pipe for this purpose.

## TAPE 1, 2 jacks

If only one tape deck is to be connected to the system it is recommended that it be connected to the jacks marked TAPE 1. (If the tape deck is equipped with a 3 head system, connect to the jacks marked TAPE 2. The simultaneous monitoring can be possible.) Tape deck input and output cables are normally terminated with phono plugs.

**Playback**

Plug the left and right output cables of the tape deck into the [L] and [R] TAPE 1 PLAY jacks.

**Record**

Plug the left and right input cables of the tape deck into the [L] and [R] TAPE 1 REC jacks.

**Second tape deck**

Plug the input and output cables from the second tape deck into the REC and PLAY jacks marked TAPE 2.

## VIDEO (Audio/Video) jacks

Two video recorders can be connected to the VIDEO 1, VIDEO 2 jacks.

**Playback**

Connect the unit's video IN jack to the video recorder's video output terminal.

Connect the unit's audio IN [L] and [R] jacks to the video recorder's audio output terminals.

**Record**

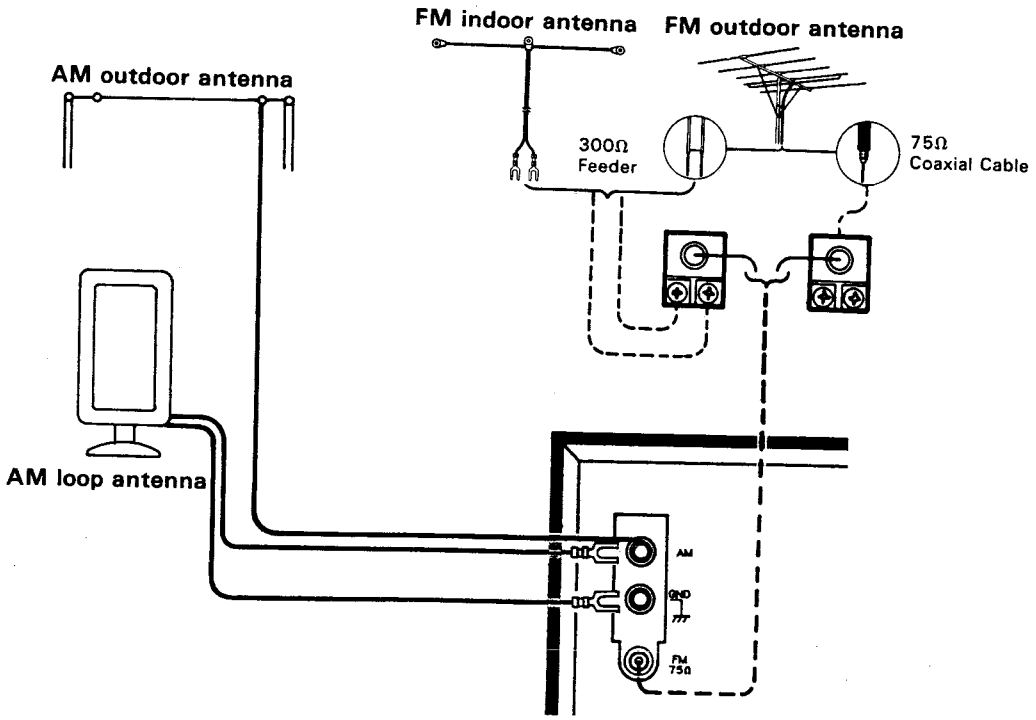
Connect the unit's video OUT jack to the video recorder's video input terminal.

Connect the unit's audio OUT [L] and [R] jacks to the video recorder's audio input terminals.

## MONITOR OUT jack

Video monitor can be connected to the MONITOR OUT jack. (The video monitor or TV should be equipped with video input terminals.)

## Antenna connections




## AM antennas

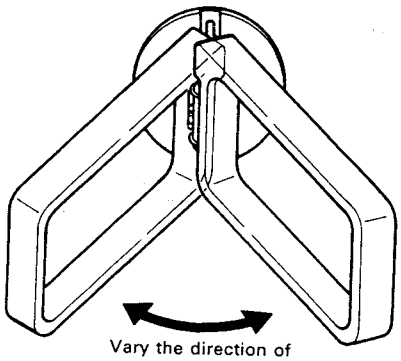
### AM loop antenna

Install the AM loop antenna to the supplied loop antenna stand and place them on a shelf, etc., or install them in the rack or wall with screws.

Rotate the AM loop antenna to the right or left for best reception.

**Note:**

Do not place the AM loop antenna on the unit. As this unit employs computing device, placing the AM loop antenna on the unit may result in noise generation. Place the AM loop antenna away from the unit.



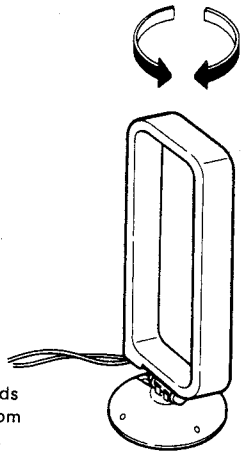

**AM loop antenna**

### AM outdoor antenna

In steel buildings or at a great distance from the transmitter, it may be necessary to install an outside long wire antenna. The end of this wire should be stripped of insulation and connected to the AM terminal. At this time, keep the loop antenna connected.

### FM indoor antenna

Connect the T-shaped indoor antenna (supplied) to the 300Ω FM ANTENNA terminals as shown in the antenna connections diagram. Spread the two arms that form the top of the "T" horizontally and hold them against convenient wall surfaces. Try several locations for best results on your favorite stations. Tape the antenna in place where the best compromise is found between listening results and appearance.



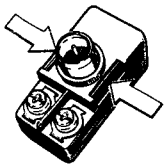

**AM loop antenna holder**

## FM outdoor antenna

Consult with your dealer or service man about the best method of selecting and erecting an outdoor FM antenna. The choice of lead-in (feeder) wire is also important. The flat ribbon-shaped twin lead performs well electrically, is cheaper and is somewhat easier to handle in routing through windows and around rooms. Coaxial cable is more expensive, does a much better job of minimizing interference, is less prone to the effects of weather and close-by metal objects, and is nearly as good a signal conductor as the ribbon type wire. The latter is particularly true of foam-type coaxial cables. Coaxial cable is somewhat more difficult to install at the point where the cable enters the building. If coaxial cable is selected, make sure the antenna is designed to drive the type of cable.

### 75Ω coaxial cable connection

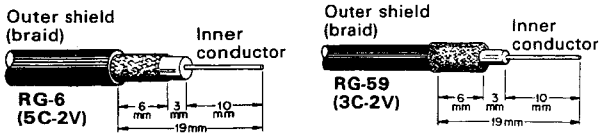
After stripping the end of your coaxial cable, RG-6 or RG-59 mount the supplied 75Ω/300Ω FM antenna adapter on the cable as shown. Then insert the plug into the 75Ω ANTENNA terminal on the rear panel as shown in **Antenna connections diagram.**



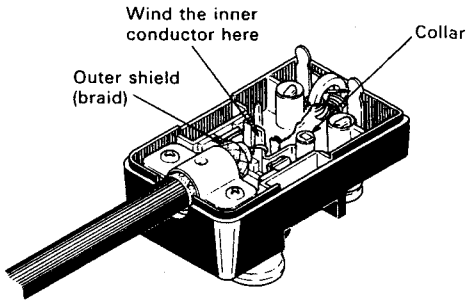
Press the claws in the direction of the arrows with the fingers to release the lock and pull out the cover.

### How to open the 75Ω/300Ω antenna adapter

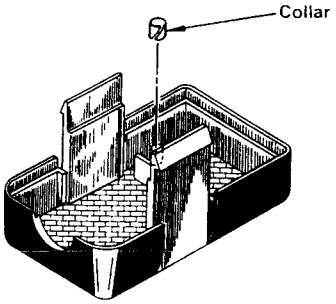
1. Arrange the coaxial cable as illustrated.




2. Connect the processed coaxial cable to 75Ω/300Ω antenna adapter as shown below. In the case of RG-6, insert and wind the inner conductor around the slit. In the case of RG-59, further insert and wind the inner conductor around the slit. Detach the collar in the antenna adapter.




3. Put the collar on the pole in the cover.




**75Ω antenna connection**

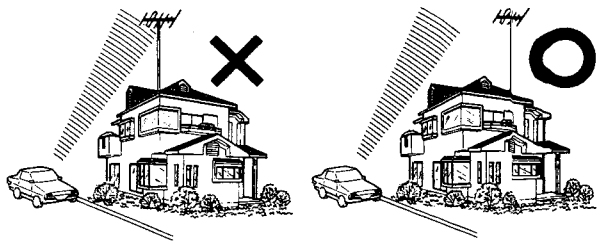
### 300Ω ribbon type cable connection

Although the unit is designed exclusively for use with 75Ω coaxial cable, it can also accept a 300Ω indoor antenna or 300Ω ribbon-type lead-in cable by using the supplied 75Ω/300Ω antenna adapter. Strip the plastic insulation from the wire ends for about 10mm (3/8 inch). Connect the wires to the terminals on the adapter, then insert it into the 75Ω ANTENNA terminal on the rear panel (see **Antenna connections diagram**).

If you connect a 300Ω feeder cable, you need not detach the cover in the 75Ω/300Ω antenna adapter.

**Note:**

A FM outdoor antenna can be connected to the receiver with either a 75Ω coaxial cable or 300Ω ribbon feeder. For proper connection, carefully read the instruction manual for the FM outdoor antenna.



- To minimize auto-ignition noise, locate the antenna as far from heavy traffic as possible.
- Keep the feeder or coaxial cable as short as possible. Do not bundle or roll up excess cable.
- The antenna should be at least two meters (6.6 feet)from reinforced concrete walls, or metal structures.

**FM outdoor antenna setting**

**AC outlets (SWITCHED outlets)**

The AC outlets on the rear panel of the unit may be used to supply power to other components in the system, such as turntables, tape decks, etc. Never connect equipment whose power consumption exceeds the maximum value shown at each outlet.

The maximum total capacity is 200 watts.

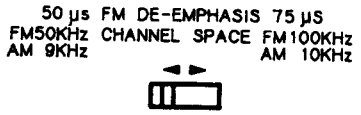
**FM DE-EMPHASIS/CHANNEL SPACE switch (Except for some areas)**

The FM-DE EMPHASIS/CHANNEL SPACE switch on the rear panel is set to the correct setting that prevails in the area to which the unit is shipped. However, if the FM DE-EMPHASIS/CHANNEL SPACE setting is not matched to the area where the unit is to be used; for instance, when you moved from area 1 to area 2 or vice versa, desired reception of AM/FM broadcasts is not expected. In this case, change the FM DE-EMPHASIS/CHANNEL SPACE setting in accordance with the area corresponding to the table shown below.

The FM DE-EMPHASIS is switched over at the same time.

| Area | | Channel Space Frq. | FM DE-EMPHASIS |
|---|---|---|---|
| 1. | U.S.A., Canada Hawaii, and Guam | **FM:** 100kHz<br>**AM:** 10kHz | 75 μs |
| 2. | European countries and Far East countries | **FM:** 50kHz<br>**AM:** 9kHz | 50 μs |

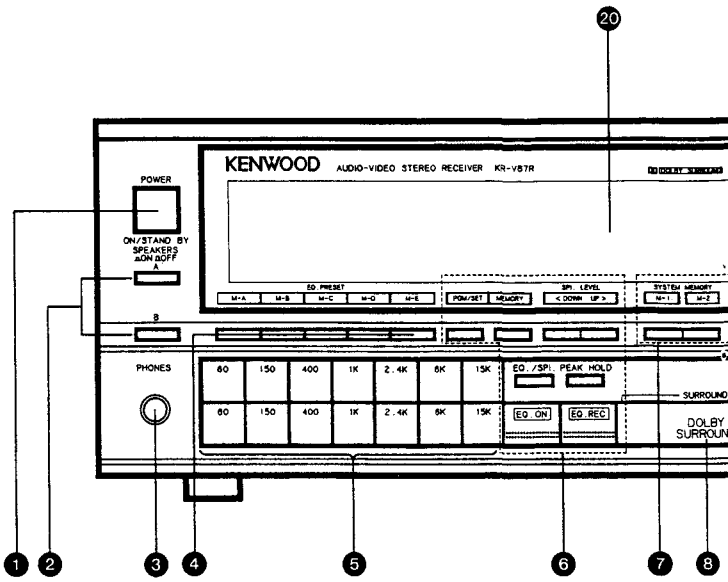
**FM DE-EMPHASIS/CHANNEL SPACE table**




**Note:**

When changing the setting of the FM DE-EMPHASIS/CHANNEL SPACE switch, first disconnect the power cord, then reset the channel space switch, connect the power cord again, and turn the power on.

# Controls and indiccators




**❶ POWER switch**
Press this switch to turn on power. Press it again to turn power off.

**❷ SPEAKERS A and B switches**
**A,B OFF** – This position silences all speakers to permit private use of headphones.
**A ON** – Activates speakers connected to the SPEAKERS A terminals on the rear panel.
**B ON** – Activates speakers connected to the SPEAKERS B terminals on the rear panel.
**A,B ON** – Activates speakers connected to the SPEAKERS A and B terminals simultaneously.

**Note:**
When the SPEAKERS A and B switches are used at the same time, the speakers connected to the SPEAKERS A and B terminals are connected in series. In this respect, whenever using the SPEAKERS A and B switches at the same time, be sure that two pairs of speakers are connected to the terminals A and B, otherwise no sound is output.

**❸ PHONES jack**
Stereo headphones are plugged into this jack.

**❹ EQ (Equalizer) PRESET keys**
Use these keys to store equalizer curves in memory or to recall them.
**PGM:** User-adjusted equalizer curves can be programmed as desired and stored in memory; up to five patterns.
**SET:** Five factory-preset equalizer curves are stored in memory.
Up to 10 equalizer curve memories are available in total. Press the PGM/SET key to select either the user-programmed pattern or the factory-preset pattern.

**❺ Equalizer level controls**
Adjust these controls up and down to equalize the sound by ±12 dB to the center frequency indicated.

**❻ Equalizer function keys**

- **Equalizer preset mode key (PGM/SET)**
  Each time this key is pressed, the recall mode of the equalizer preset curves alternates between PGM (user programmed patterns) and SET (factory preset patterns).

- **Equalizer preset MEMORY key**
  This key is used to store an equalizer curve into the PGM PRESET memories. First, select the desired equalizer curve and then press this key. Then press any of the PRESET (A to E) keys. The selected equalizer curve will be stored in the memory indicated by the PRESET key pressed.

- **SPI. LEVEL control keys (KR-V87R)**
  These control keys are used to adjust the display level of the spectrum analyzer display. Press the UP side of the key to increase the display level, and press the DOWN side to decrease it.

- **EQ/SPI key (KR-V87R)**
  Pressing this key alternates the display mode between the EQ (graphic equalizer) and SPI (spectram peak indicator.)

- **PEAK HOLD key (KR-V87R)**
  In the spectrum peak indicator (SPI) mode, pressing this key activates or deactivates the Peak Hold function of the spectrum peak indicator.

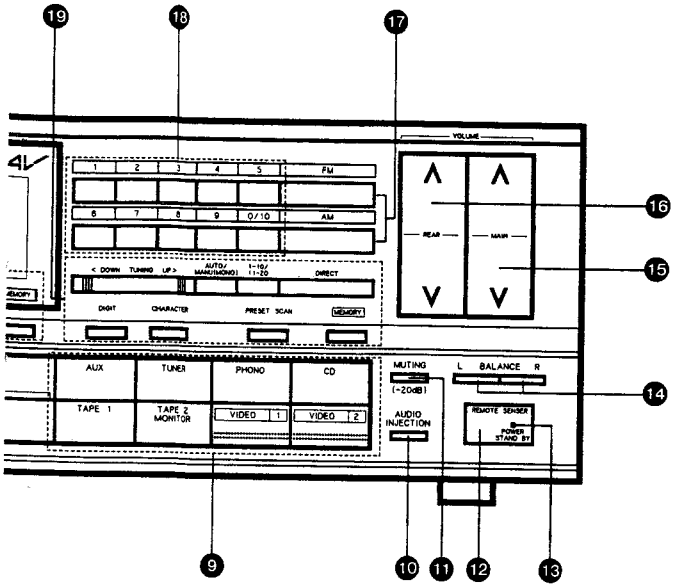
- **Equalizer (EQ, ON) key**
  Press this switch to ON and the frequency characteristic will be modified by passing through the graphic equalizer. In the DEFEAT position, the frequency characteristic remains unchanged.

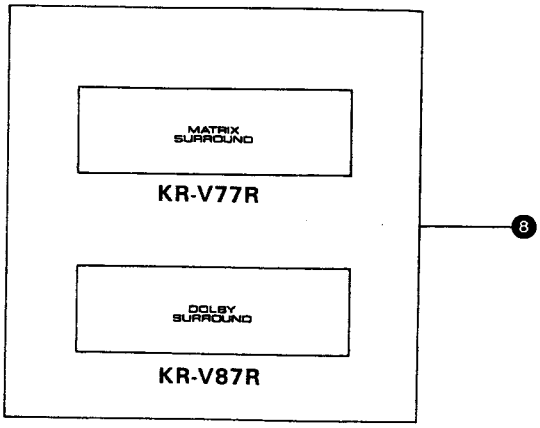
- **EQ REC key**
  Used when recording the source onto the tape deck through the equalized response of the graphic equalizer.

**❼ System memory keys**

- **SYSTEM MEMORY channel key (M-1/M-2)**
  Two groups of memory can be used with the preset channel key of the System Memory system. After entering the memory preset mode by pressing the SYSTEM MEMORY key, press the M-1 or M-2 key.

- **System MEMORY key**
  This key is used to store the currently playing condition in memory.




### ⑧ DOLBY SURROUND key
Press this key to activate or deactivate the surround output. In the KR-V87R, DOLBY surround mode is automatically entered when this key is pressed. In the KR-V77R, MATRIX surround mode is automatically entered when this key is pressed.
With the KR-V77R, when the speaker selector switch at the rear is set to 8Ω OR MORE, the surround mode cannot be obtained.

### ⑨ Input selector switches
**TAPE 1** – Press this switch to play back a tape deck connected to the TAPE 1 jacks.
**TAPE 2/MONITOR** – Press this switch to play back a tape deck connected to the TAPE 2 jacks. (The TAPE 2 switch is operated in priority to any other audio input systems.)
**VIDEO 1** – Selects the video recorders connected to the VIDEO 1 jacks.
**VIDEO 2** – Select the video recorders connected to the VIDEO 2 jacks.
**CD** – Selects the source connected the CD jacks.
**PHONO** – Selects the program source played on the turntable.
**TUNER** – Selects the tuner mode.
**AUX** – Selects the source connected the AUX jacks.

### ⑩ AUDIO INJECTION key
Press this key ON when replacing the sound of VIDEO 2 with that of AUDIO source is required on dubbing between VIDEO sources.

### ⑪ MUTING key
When the muting key is pressed, the MUTING indicator in the display window will flash, and the overall listening sound level is reduced.
When the key is pressed again, you can restore exactly the same listening level as before.

### ⑫ REMOTE SENSOR
Point the supplied remote control unit towards this sensor and operate.

### ⑬ REMOTE POWER STAND BY indicator
This indicator lights so far as the power cord is plugged into the AC outlet. It is lit to show that the POWER switch on the front panel or the POWER key on the remote control unit can be activated.

### ⑭ BALANCE control key
Governs the amount of sound coming from each paired speakers to get optimum stereo effect. Pressing the RIGHT key will decrease the left channel volume and pressing the LEFT key will decrease the right channel volume. When the BALANCE controls is pressed, display window shows the BALANCE indicator.

### ⑮ MAIN VOLUME control key
This control adjusts the left- and right-channel volumes simultaneously. Set it for the desired listening level. Pressing the up (Λ) side increases the volume and pressing the down (V) side decreases it.
Indicator (Λ) or (V) blinks when this unit is operated directly or with the remote control unit.
The volume level of the rear speakers are controlled at the same time.

### ⑯ REAR VOLUME control keys (KR-V87R)
Adjusts front/rear balancing when surround speakers are used. The control range is ±20 dB of the front speaker level.

### ⑰ Band selector switches
**FM** – For FM broadcasts.
**AM** – For AM broadcasts.

### ⑱ Numeric (1 ~ 0/10) keys
Use these keys to:
1) input directly the digits of frequencies, or
2) store and recall frequencies in the preset channel.

### ⑲ Tunning function keys
#### ● DIGIT key
In the station name input mode, pressing this key advances the column after selecting the character with the Tuning UP/DOWN key. When this operation is repeated four time, the station name input mode will be released automatically.

#### ● CHARACTER key
Press this key to activate the station name input mode.

● **PRESET SCAN key**
Use this key for preset channel scanning.
When a frequency stored in the preset memory is being received, pressing this key shifts the reception to the next frequency stored in the preset memory. (The preset channels are scanned in the order 1, 2,..... 11, 12,..... 20,)
To stop a scanning operation, press the SCAN key again.

● **MEMORY key**
When the input mode is TUNER, use this key to store new broadcast station data in the preset channel memory. By pressing the MEMORY key, setting the preset channel to 1-10 or 11-20 and by pressing one of the numeric keys, the frequency being received is stored in the memory in the numeric key pressed.

● **DIRECT key**
Used to tune to the station directly. Input the desired frequency numerics with the numeric keys after pressing the DIRECT key.

● **Preset function (1-10/11-20) key**
Used to select 1-10 or 11-20 setting for the preset channel. In either FM or AM mode, 20 stations can be preset as random as each setting ("1-10" or "11-20") can contain 10 preset stations. Indicator "1-10" lights when "1-10" setting is used, and indicator "11-20" lights when "11-20" setting is used.

● **AUTO/MANUAL (MONO) key**
When this key is pressed, the AUTO indicator will light. The frequency will automatically stop at a station in automatic tuning mode. When a stereo broadcast is received, the output sound is automatically changed to stereo.

● **TUNING keys**
Used to change the frequency. Pressing UP side will advance to the higher frequency and pressing DOWN side to the lower frequency.
In the station name input mode, this key is used to select the character.

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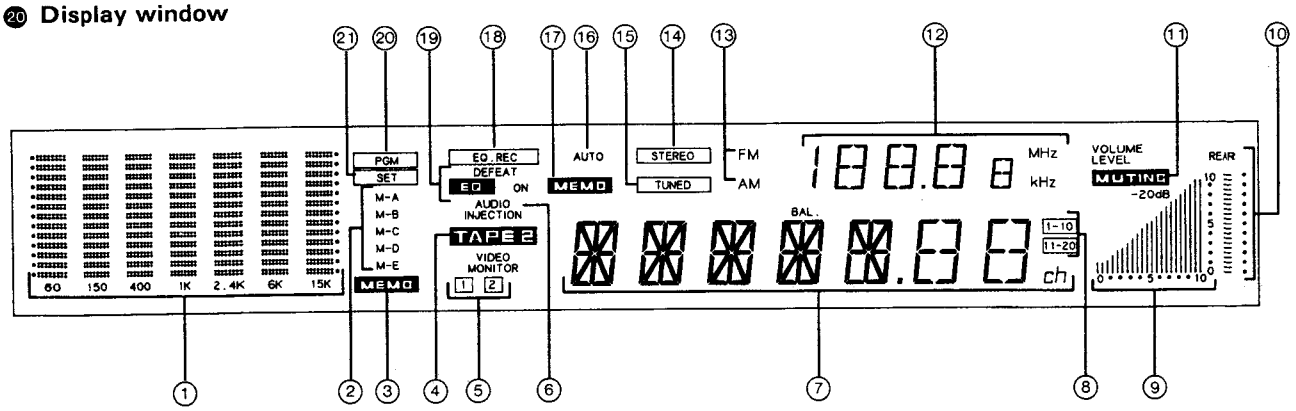
⑳ **Display window**




① In graphic equalizer mode, displays the equalizer level display, the music spectrum analyzer display and peak hold display.
② Displays when storing or recalling equalizer preset channel in memory.
③ Lights when the Memory (EQ) key is pressed to store the desired equalizer curve.
④ Lights when the TAPE-2 key is pressed.
⑤ VIDEO monitor out indicator.
⑥ Lights when the AUDIO INJECTION key is pressed.
⑦ This displays the input mode, preset channel, station name, front volume level, rear level, balance, DOLBY surround (KR-V87R), EQ preset channel, SPI level (KR-V87R), system memory indicator.
⑧ "1-10"or "11-20" lights according to the selection of the preset function keys.
⑨ Front volume level indicator
This indicator displays the volume level for the front-channel speakers.
⑩ Rear volume level indicator (KR-V87R)
The volume level of the rear-channel speakers is indicated within a ± 20 dB range.
⑪ Flashes when the MUTING key is pressed.
⑫ Displays the digital frequency display.
⑬ Displays the tuner band "FM" or "AM".
⑭ In tuner mode, lights when a stereo broadcast is tuned in.
⑮ In tuner mode, lights when a station is tuned in.
⑯ Lights during auto tuning.
⑰ Lights when the MEMORY key is pressed.
⑱ This indicator lights when EQ REC (equalizer recording) key is pressed.
⑲ Lights when the Equalizer (EQ. ON) key is set to "ON". Lights when the Equalizer (EQ. ON) key is set to "DEFEAT".
⑳ Lights when the Equalizer preset mode (PGM/SET) key is set to "PGM".
㉑ Lights when the Equalizer preset mode (PGM/SET) key is set to "SET".

# Operating instructions

## ■ Listening to AM/FM

1. Press the Power switch to ON.
2. Press the TUNER key of the input selector.
3. Select FM or AM of the band (FM/AM) selector.
4. Tune to the required station with following procedures: Auto tuning, Manual tuning or Direct tuning.

### Auto tuning

1. Press the AUTO/MANUAL (MONO) key to set to "AUTO".
2. Press the UP or DOWN TUNING key: The frequency will automatically increase or decrease until a station with sufficient signal level is received. To stop the frequency scanning before a station is received, press the AUTO/MANUAL key to set to "MANUAL".
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer control to adjust the sound to your own preference.

### Manual tuning

1. Press the AUTO/MANUAL (MONO) key to set to "MANUAL".
2. Press the UP/DOWN TUNING key to tune in the desired station.
   To continuously increase or decrease frequencies, hold the TUNNING key depressed.
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer control to adjust the sound to your own preference.

### Direct tuning

1. Select FM or AM with the FM, AM selector switch.
2. Press the DIRECT key.
3. Input the desired frequency with numeric keys.
4. The receiver enters the radio reception mode just after the frequency value has been input.
   (If the input value is outside the tuning range, the frequency display flashes for 5 seconds and the receiver returns to the radio reception mode of the last channel.)

## ■ Presetting broadcast station data

In total up to 20 stations data (station frequency and station name) can be stored in memory.

1. Select the desired station with either AUTO tuning, MANUAL tuning or DIRECT tuning.
2. Input the broadcast station name in accordance with the character input procedure.
   For the broadcast station names, up to 4 characters can be input.
- When the contents in item 2 is not required for display memory, proceed to item 3 after item 1.

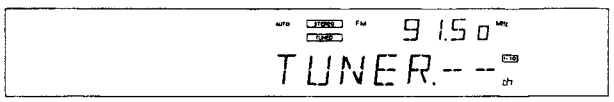
3. Press the preset function key to select "1-10" or "11-20".
4. Press the MEMORY key. (The MEMORY indicator lights.)
5. Press one of the numeric keys: The frequency being tuned in and the station name are stored.

### Character input procedure

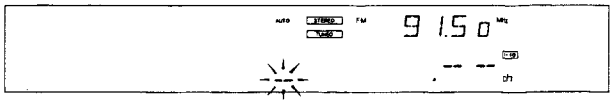
1. Press the CHARACTER button to set the character input mode. The first column of the character display section begins flashing.
2. Press the TUNING UP/DOWN key to select the character.
3. When the desired character is displayed, press the DIGIT key.
   Flashing will shift to the next column.
4. Repeat procedure 3 and 4 for four times to complete inputting. The character input mode will be released.
- Even in the middle of inputting, pressing the CHARACTER key again will release the character input mode. At this time, the data which has been input is valid.

**Example 1:** To preset the 91.50 MHz FM broadcast and a station name "W N Y" when the station other than the preset channel memories is received.

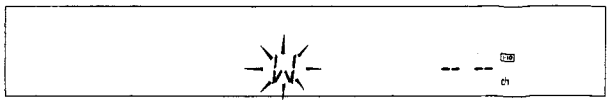
1. Tune to 91.50 MHz FM broadcast.



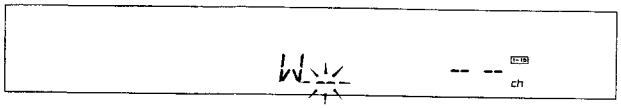

2. Press the CHARACTER key.



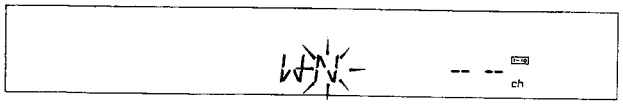

3. Press the TUNING UP key twenty-three time to select "W".
   _A→B→C→D→E→F→G→H→I→J→K→L→M→N→O→P→Q→R→S→T→U→V→W



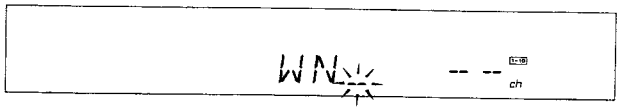
4. Press the DIGIT key.



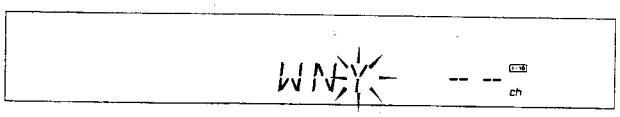
5. TUNING UP key fourteen times to select "N".
_A→B→C→D→E→F→G→H→I→J→K→L→M→N



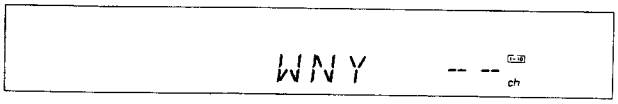
6. Press the DIGIT key.



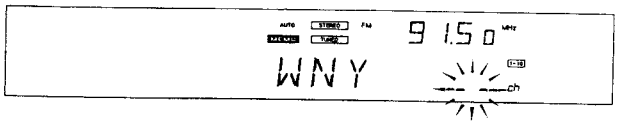
7. TUNING UP key twenty-five times to select "Y".
_A→B→C→D→E→F→G→H→I→J→K→L→M→N→
O→P→Q→R→S→T→U→V→W→X→Y



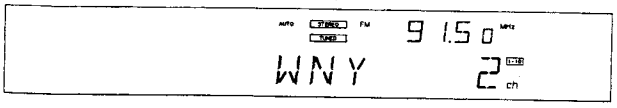
8. As the fourth column should be left blank, press the DIGIT key twice or press the CHARACTER key.



9. Press the MEMORY key.

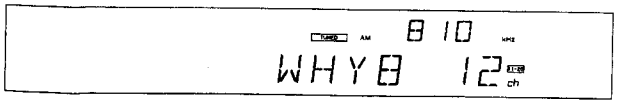


10. Press channel 2 of the preset channels

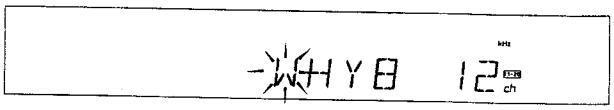


**Example 2:** To change the station name from "WHY8"" for 810 kHz AM broadcast memorized in 12 preset channel to "W, G, Y".

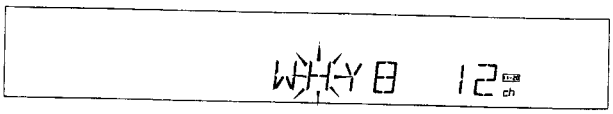
1. Recall the 12 preset channel with the PRESET 1-10/11-20 switch and the PRESET-key according to "Recalling the Preset Memory".



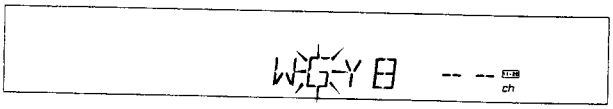
2. Press the CHARACTER key.



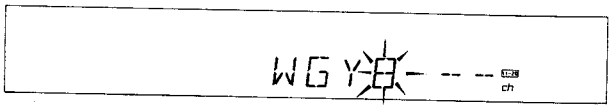
3. Press the DIGIT key to shift the flashing character to the next column since the first character "W" should be left as it is.



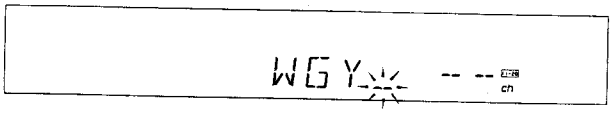
4. Press the TUNING (DOWN) key to select "G".
H→G



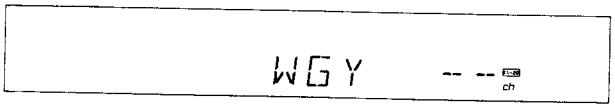
5. Press DIGIT key twice.



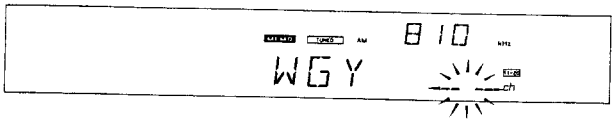
6. Press the TUNING key to select a blank.



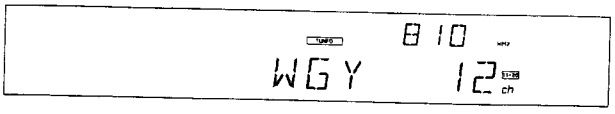
7. Press the DIGIT key or press the CHARACTER key.



8. Press the MEMORY key.



9. Press channel 12 of the preset channels.



## ■ Listening to a preset station

1. Press the preset function key to select "1-10" or "11-20".
2. Press a numeric key under which memory has been preset.
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer control to adjust the sound to your own preference.

## ■ Listening to record playing

1. Press the PHONO key of the INPUT SELECTOR switches.
2. Operate the turntable to play back a record.
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer control to adjust the sound to your own preference.

● With a turntable that is connected to this unit with a System Control cord, the convenient System Control operations are available. For details on this, refer to "System Control Operation" on page 20.

## ■ Listening to the program source connected to the CD or AUX jacks

1. Press the CD or AUX key of the input selector switches.
2. Operate the component connected to the CD or AUX jacks.
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer controls to adjust the sound to your own preference.

● With a CD-player that is connected to this unit with a System Control cord, the convenient System Control operations are available. For details on this, refer to "System Control Operation" on page 20.

## ■ Tape deck operation

1. Press the appropriate TAPE key of the input selector switches (1 or 2) to select output from a tape deck connected to the TAPE 1 or 2 jacks.
2. Operate the tape deck.
3. Adjust the VOLUME control to the required listening level and use the graphic equalizer controls to adjust the sound to your own preference.

● With a tape deck (connected to the TAPE 1 jacks) that is connected to this unit with a System Control cord, the convenient System Control operations are available. For details on this, refer to "System Control Operation" on page 20.

**Note:**
When both key (TAPE-1 and TAPE-2) are pressed, TAPE-2 setting has priority.

## Recording

1. Press the appropriate key of the INPUT SELECTOR switches.
2. Set up your tape deck(s) for recording and set the recording level with the controls on your tape deck(s).
3. Adjust listening level at the unit to suit your listening preference.

**Note:**
When a tape deck is connected to this unit with a System Control cord, all of the input selector switches are disabled during recording and do not function until recording is finished. This will prevent the recording from being interrupted.

### Tape dubbing

Tape recordings may be duplicated (dubbed) easily using two tape decks connected to the TAPE 1 and 2 jacks.

For example:
(TAPE 1 to 2);

1. Connect two tape decks to the TAPE 1 and TAPE 2 jacks
2. Press the TAPE 1 switch.
3. Play back the recorded tape and adjust the recording levels before starting tape dubbing.

(TAPE 2 to 1);

1. Press the TAPE 2 switch.
2. Press a key except TAPE 1 of the INPUT SELECTOR switches such as AUX.
3. Play back the recorded tape and adjust the recording levels before starting tape dubbing.
4. Do not press the TAPE 1 switch during recording with tape deck 1.

**Note:**
Adjust record levels on the deck that is making the copy using that deck's operating controls.

## ■ VIDEO deck operation

### Listening to video recorder audio sound

1. Press the appropriate VIDEO (1, 2) key of the INPUT SELECTOR to select output from a video recorder connected to the VIDEO (1, 2) jacks.
2. Operate the video recorder.
3. Adjust the VOLUME controls for your preference.
4. When a video monitor is connected to the VIDEO MONITOR OUT jack on the rear panel, the picture from the recorder can also be monitored.

### Dubbing between two VCRs

Video dubbing can be performed while listening to any desired source.
With this set, through dubbing from [VCR 2] to [VCR 1] is possible.
To operate, set the [VCR 1] video deck to record-pause mode and set the [VCR 2] video deck to playback mode. At the same time as the [VCR 2] video deck starts to play, the record-pause mode of the [VCR 1] video deck is released and recording starts.

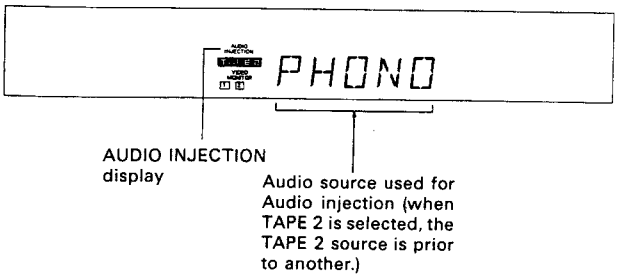
### Audio injection

During video dubbing, the sound from the VCR can be replaced with the desired audio source without affecting the picture.
At this, graphic equalizer can be applied to the recording audio source.

1. Press the AUDIO INJECTION switch so that the "AUDIO INJECTION" display is illuminated.
2. Select the desired audio source for Audio injection with the INPUT SELECTOR.
3. When equalizer compensation is required when recording a desired audio source with audio injection ON, press the EQ.REC key.

- The [EQ REC] indicator lights up.
- Set the equalizer controls as desired.

4. Operate each VCR for dubbing.


PHONO
AUDIO INJECTION display
Audio source used for Audio injection (when TAPE 2 is selected, the TAPE 2 source is prior to another.)

## ■ Graphic equalizer operation

### Normal operation

1. Select the desired source.
2. Press the equalizer (EQ. ON) key to ON.

- The [EQ] ON indicator lights up in the display window.

3. Press the equalizer level control UP DOWN keys so that the equalized sound is heard from the speakers as desired.

### Preset procedure

Use EQ PRESET key to store equalizer curves in memory or to recall them. (Five different equalizer curves can be stored.)

1. Select the desired source.
2. Press the equalizer (EQ. ON) key to ON.
3. Set the your desired equalizer curve.
4. Press the MEMORY (EQ) key.
5. Press the desired EQ PRESET keys (M-A ~ M-E) to store the equalizer curve.

### Preset operation

The preset memory of this unit is available in two types the "PGM" memory in which the user-created desired sound response can be preset, and the "SET" memory in which the factory-preset sound equalizer curves are prepared. Use them by referring to "Characteristics of the SET preset memories".

1. Select SET or PGM.

- The previously selected equalizer curve of the preset channel is displayed.

2. Select preset key

**Characteristics of the "SET" preset memories**

A: For solid and punchy sound.
B: For effective reproduction of the dynamic movie sound.
C: For easy to listen background music.
D: For musical sound reproduction in a sense of lively
E: For reproducing the vocal music realistically.

### EQ REC switch

Press this switch, signals will allow equalized to be recorded on TAPE 1. If you wish to record non-equalized signals with the equalizer switch in the ON position, turn the equalizer recording switch to OFF. This will allow you to hear the equalized signals while recording non-equalized signals.

**Note:**
The equalized signal is not output at TAPE 2 REC jacks.

## ■ Surround operation

### DOLBY SURROUND (KR-V87R only)

1. Set the SURROUND key to ON.

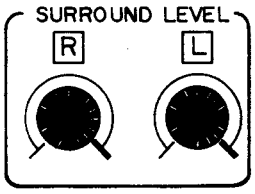
● The DOLBY SURROUND indication which is marked on the key lights.

● The input selector on the display window shows "DOLBY" for about 5 seconds.

2. Select the source which is desired to be expected for Dolby-surround sound effect, and play it.
3. Adjust the volume control and balance between the front speakers and the rear speakers by controlling the MAIN and REAR VOLUME control key.

● The MAIN VOLUME control allows you to increase or decrease the volume level for both the front and rear channels simultaneously.

● The REAR VOLUME control range is ±20 dB of the frontspeaker level.




The SURROUND LEVEL controls located on the rear panel are set to its maximum position normally. However, if the left/right balance is shifted incorrectly, first set the SURROUND mode to the DOLBY position and reproduce the monaural source to adjust so that no sound is heard from the rear speakers.

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### MATRIX SURROUND (KR-V77R only)

**Caution:**

Before starting operation, be sure to check the following poings:

1. The SPEAKER IMPEDANCE SELECTOR on the rear panel of this unit is set to the "LESS THAN 8Ω" position.
2. Each of the front-channel and rear-channel speaker systems has an impedance of more than 8Ω.

1. Set the SURROUND key to ON.

● The MATRIX SURROUND indication which is marked on the key lights.

2. Select the source which is desired to be expected for surround sound effect, and play it.
3. Adjust the volume control and balance between the front speakers and the rear speakers by controlling the MAIN VOLUME control key.

**Note:**

1. When the SPEAKER IMPEDANCE SELECTOR on the rear panel is set to the "MORE THAN 8Ω" position, the SURROUND key does not function.
2. If speakers having an impedance of less than 8 ohms are connected, overheating may occur and cause trouble to this unit.

## ■ System Memory

The required playback condition can be stored in memory for each music program (tape, compact disc, phonograph record (disc) or broadcasting program), so that the same volume level, the same balance (between front and rear channels), and the same equalizer pattern, etc. can be recalled at any time instantly.
Two types of settings can be stored in memory, and by pressing the SYSTEM MEMORY (M-1 or M-2) key you can recall the preset sound field condition instantly.

**Stored contents:**

The stored contents in the System Memory are as follows:

- O Input selector (CD, PHONO, TUNER, TAPE, VIDEO, etc.)
- O Preset channel in the TUNER position
- O Audio injection
- O EQ. key setting (ON/DEFEAT)
- O EQ. REC key setting (ON/OFF)
- O Preset channel of the equalizer pattern
- O SURROUND setting (ON/OFF)
- O Front-channel volume level
- O Rear-channel volume level (KR-V87R)
- O Front-channel balance control setting

**How to preset the System Memory:**

1. Set the playback conditions as required.
- ● When selecting the tuner or equalizer, be sure to designate the preset channel.
2. Press the SYSTEM MEMORY key.
- ● The display shows "SYS M-" for about 5 seconds.
- ● When "SYS M" is blinking in the display, the tuner or equalizer pattern is not preset in memory.
  After presetting the playback condition for each channel, press the MEMORY key again.

**How to recall System Memory:**

1. Press the M-1 or M-2 key.
- ● The display shows "SYS M-1" or "SYS M-2" for about 1 second, and the settings of each section are changed to the preset contents.
2. Readjust the setting of each section as required.
- ● When PHONO is selected for the input selector, with a system-controlled turntable connected, the turntable will automatically start playing by recalling the System Memory. Therefore, be sure to set the record on the platter of the turntable before activating the System Memory function.
- ● In the same way, when a system-controlled tape deck or CD player is connected to this unit, the tape deck or CD player can be started automatically by activating this System Memory function.

**Note:**

1. Do not set the volume controls to an excessively high volume level. It may not only astonish the listener, but it may also damage the speaker or amplifier.
2. If the contents of the preset channel is changed after designating the tuner or equalizer section channel for System Memory, the contents of the System Memory channel will also be changed.

## ■ System control operation

**Connection**

Using the system control cord provided with the system component models as below, make connections as shown on page 7.

**The following models are available for the system control operations.**

| | |
|---|---|
| **Turntable:** | **KD-77F, KD-67F or KD-47F** |
| **Cassette deck:** | **KX-97CW, KX-77CW KX-67W or KX-87CR** |
| **CD player:** | **DP-87, DP-57, DP-47, DP-M107R, DP-M97 or DP-M97R** |

**Note:**

Some models provide two or three system control jacks. However, when used with this receiver, be sure to connect the system control cord to the jack having a indication of ①.

## Operation

**1. Automatic play operation**

When starting play with the turntable, cassette deck or CD player connected to the receiver, press the desired INPUT SELECTOR switch on the receiver. The turntable, cassette deck or CD player will automatically enter the play mode.
In the same way, pressing the Play key of the turntable, cassette deck or CD player will automatically switch the INPUT SELECTOR on the receiver to the equipment on which the Play key is pressed.

**2. Synchro recording**

To record the sound from the turntable or CD player onto the tape with the cassette deck, press the PLAY (START) key of the turntable or CD player. The cassette deck will start recording automatically, synchronized with the turntable or CD player starting play. For more details, refer to the instruction manual of the cassette deck.

**3. Remote control**

When the remote control unit provided with this unit, to which the turntable, cassette deck or CD PLAYER is connected, is equipped with related control keys, the related components can be controlled using these keys.

**Note:**

During recording with the cassette deck, the INPUT SELECT on the receiver is fixed at the source from which the recording is made, by the system control circuit. At this time, pressing any of the INPUT SELECTOR keys does no function even when it is pressed.

# Operating procedure of the remote control unit (RC-70)

## ■ Operations

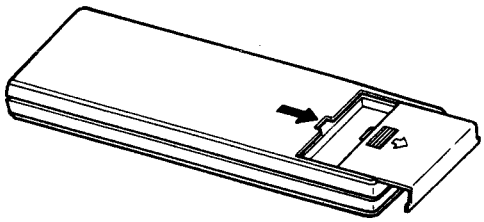
1. Connect the power plug of this unit to an AC outlet.
● This main frame enters the power standby mode and the POWER STANDBY indicator lights.
2. Press the POWER key of remote control unit or the POWER switch of this unit.
● This unit enters the power ON mode.
3. Operates with the keys of remote control unit.

**Note for remote control operation**

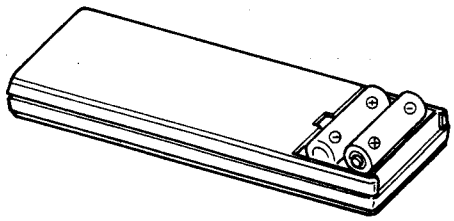
After pressing one of operation keys, when the next operation is required, press the next operation key firmly after approx. 1 second interval.
When the next operation key is pressed immediately after the previous key, it may cause misoperation.

## ■ Installing the battery on the remote control unit

1. Remove the battery compartment cover.



2. Insert two size "AA" (R6) batteries confirming the correct polarity and close the cover in its place.



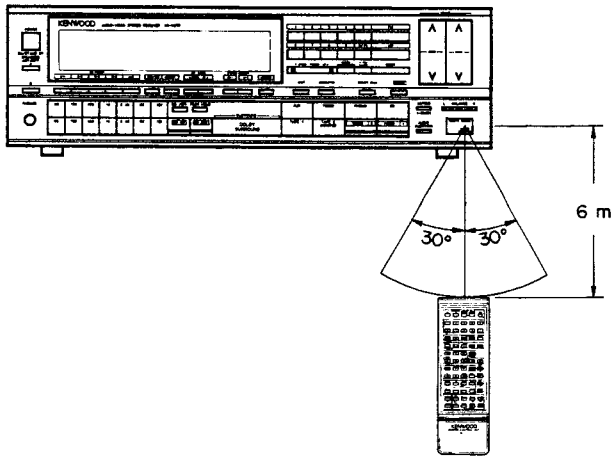
**Note:**

The provided batteries are to be used for operation of the remote control unit, and it may have shorter life. When the remote unit becomes effective only for shorter distance on dose not effective to operate, replace them with two new batteries.

## ■ Usable range of remote control unit

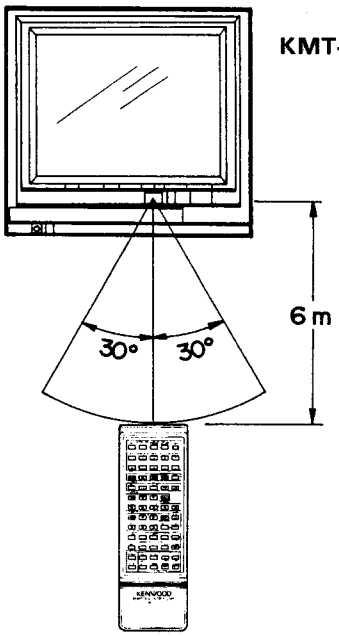
The usable range of the remote control unit may differ on temperature, humidity or using conditions, however, it is defined approximately as shown in the figure below:

**For controlling audio**

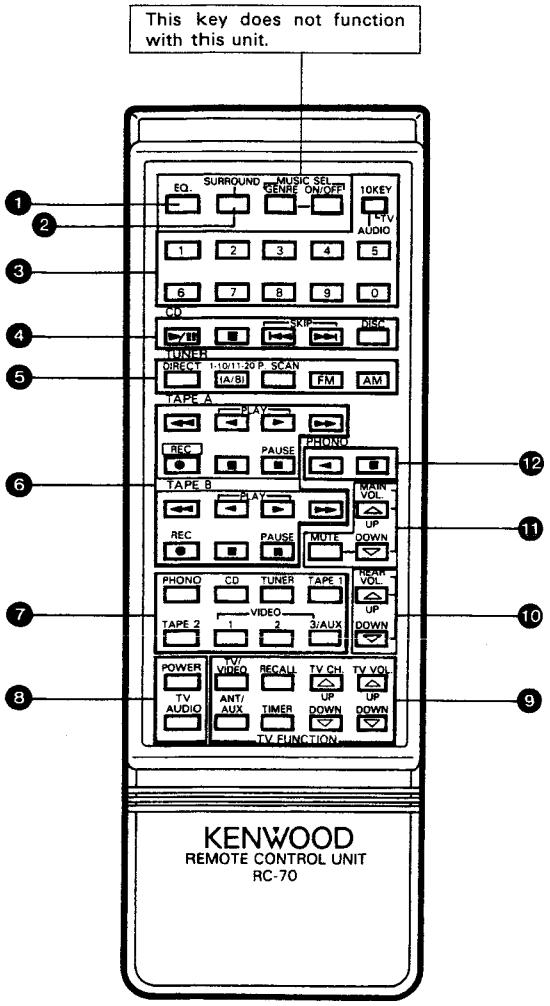



**For controlling TV set**

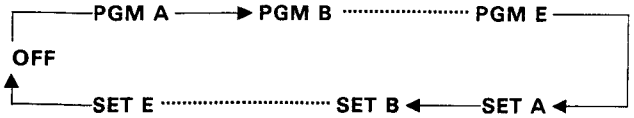
**KMT-1026/KMT-2026S**



## ■ Control keys



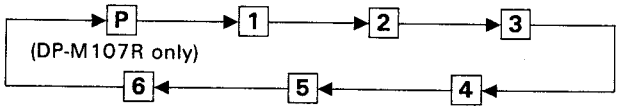

**❶ Equalizer preset keys (EQ)**
The 5 "PGM" presets and the 5 "SET" presets–total of 10 equalizer preset patterns can be recalled sequentially.




**❷ Surround key**
This key is used to turn the surround system ON or OFF.

**❸ 10-KEY**
**AUDIO:** 10-key direct operation is possible only for tuner and CD player.
(For example: When "7" is pressed while listening to track No. 4 of CD player, the track No. is changed to 7.)
**TV:** 10-key direct operation is possible only for TV. Use buttons "0-9" in combination for direct channel selection regardless of any previous memory settings or functions. Generally, key in channel numbers in two digits for speedy operation. To key in lower channel numbers from 2-9, key in "0", then the channel number. (For example, to tune in channel 9 directly, key in "0", then "9", for channel 23, key in "2", then "3", etc.) (U.S.A. only)

**❹ Compact disc player (DP-87/DP-57/DP-47/DP-M107R/DP-M97R/DP-M97) operation keys (CD)**
**Play/pause key (▶/❚❚)**
When this key is pressed with a compact disc loaded in the compact disc player, the disc is played. (Same function as the play key on the compact disc player.)
When this key is pressed during play, the player enters the pause mode. To release pause mode, press it again.
**Stop key (■)**
Press to cancel all operations. The pickup returns to the beginning of the first tune and the player enters the standby mode. (Same function as the stop key on the compact disc player.)
**Music skip key (▶▶|)**
Press to skip to the beginning of the next tune. The pickup is advanced to the forward tunes by the number of times it is pressed. (Same function as the music skip key on the compact disc player.)
**Music skip key (|◀◀)**
Press to return to the beginning of the current tune. Pressing it again returns the pickup to the beginning.
When the key is continuously pressed, the pickup returns to the backward tunes by the number of times it is pressed. (Same function as the music skip key on the compact disc player.)
**DISC select key**
When a multiple CD player (DP-M107R, DP-M97R, DP-M97)is connected, this key selects one of six CDs sequentially in a cycle.




**❺ Tuner operation keys (TUNER)**
**Direct**
When this key is pressed, the unit is set to direct mode and the frequency of the desired station can directly be input using 10-key.
**1 ~ 10/11 ~ 20 (A/B)**
Each time this button is pressed, the preset station range is changed.
**P. SCAN**
When this key is pressed, the preset station are automatically received from A-1 for a specified time.
**Band select keys (FM/AM)**
Select the desired band for broadcast listening.
(Same function as the band selector on the tuner)

**❻ Cassette deck operation keys (KX-97CW, KX-77CW, KX-67W ..... TAPE A/B) (KX-87CR ..... TAPE B only)**

**Stop key (■)**
Press to stop tape running.
**Rewind key (◀◀)**
Press to fast-wind the tape to the left reel.
**Fast-forward key (▶▶)**
Press to fast-wind the tape to the right reel.
**Reverse Play key (◀)**
Press to start playback in reverse direction. (Rear side playback)

**Play key (▶)**
Press to start playback in forward direction. (Front side playback)
**Pause key (❚❚)**
Press to stop play back or recording momentarily.
The function of the PAUSE key.
**Record key (REC) (●)**
Press to start recording.

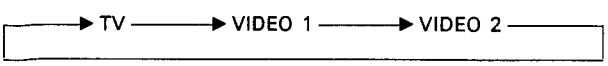
**❼ Input selector keys**
**PHONO:** To listen to a source from the turntable connected to the PHONO jacks, press this switch.
**CD:** To listen to a source from the CD player connected to the CD jacks, press this switch.
**TUNER:** To listen to a source from the tuner connected to the TUNER jacks, press this switch.
**TAPE-1:** To listen to a source from the tape deck connected to the TAPE 1 jacks, press this switch.
**TAPE-2:** To listen to a source of the tape deck, etc., connected to the TAPE 2 jacks, press this switch.
**VIDEO 1:** To listen to a source from the equipment connected to the VIDEO 1 jacks, press this switch.
**VIDEO 2:** To listen to a source from video cassette recorder connected to the VIDEO 2 jacks.
**VIDEO 3/AUX:** To listen to a source from the equipment connected to the AUX jacks.

**❽ POWER switch**
Press to turn the power on for whole system.
**AUDIO:** Press to turn the stereo system ON. Press again to turn the stereo system OFF.
**TV (KMT-1026, KMT-2026S):** Press to turn the TV ON. Press again to turn the TV off.

**❾ TV (KMT-1026, KMT-2026S) operation keys (TV FUNCTION) (U.S.A. only)**

**Note:** With the supplied remote control unit, only KMT-1026, KMT-2026S (monitor TV) can be operated.

**TV/VIDEO key**
Use this key to select the type of signal that the monitor will receive: TV, VIDEO 1 or VIDEO 2.
**RECALL key**
Press the recall key and both the time and channel will be displayed continuously. Press it again and they will disappear. The timer function can be utilized as well but the time will not continuously be displayed.
**Channel tuning UP/DOWN keys (TV CH.) (△/▽)**
Press the channel up (△) key to tune in higher channels, and the channel down (▽) key to tune in lower channels. Press the key continuously until the channel number you wish to receive appears on the upper right side of the screen.
**ANT/AUX key**
Press this key to set the ANT and AUX indicator to agree with the antenna input source.




**Note:**
**Switching between TV and VIDEO etc., described above is not related to the function of this reciver should be effectuated or the TV set.**

**TIMER key**
Press the timer key to set desired time.
**TV VOL. keys (UP△/DOWN▽)**
Apply steady pressure to the VOLUME UP or DOWN buttons, to increase or decrease the volume as desired.

**❿ REAR VOL. keys (UP△/DOWN▽)**
Apply steady pressure to the REAR VOLUME UP or DOWN key to increase or decrease the volume as desired.

**⓫ Volume control keys (MAIN VOL.) (UP△/DOWN▽)**
Controls the volume of the speakers and headphones. Press the UP (△) key to increase the volume level and, press the DOWN (▽) key to decrease it.
**Muting key (MUTE)**
Press to decrease the volume level instantaneously. Pressing it again resumes the previous volume level. When this key is pressed, volume level is decreased. The MUTING indicator blinks.

**⓬ Turntable operation keys (PHONO)**
**Play key (◀)**
Press to start record play automatically.
For KD-67F, select the record size, before starting play with this key.
**Stop key (■)**
Press to stop play; the tonearm returns to the rest and the platter stops rotating.

# In case of difficulty

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

| Symptom | Causes | Remedy |
|---|---|---|
| No power, no sound. | 1. Power cord not plugged in.<br>2. Poor connection at wall outlet. Power outlet inactive. | 1. Check plug contact.<br>2. Check outlet using a lamp or other appliance (outlet may be controlled by a wall switch). |
| No sound from left and right. | 1. Speaker cords disconnected.<br>2. Speakers switched off. | 1. Check speaker connections.<br>2. Check speaker switch. |
| Sound from left or right, but not both. | 1. Poor speaker connections.<br>2. Defective speaker. | 1. Check connections at both ends of speaker cord.<br>2. Reverse speakers. If problem stays with speaker, have speaker checked. |
| FM broadcast too noisy. Sufficient reception is impossible. | ● Indoor antenna is used.<br>● Poor connection of the antenna cable. | ● Use the outdoor antenna.<br>● Connect the anttenna cable correctly. |
| ● Dubbing from TAPE 2 to TAPE 1 is impossible.<br>● Graphic equalizer recording does not function when recording on tape. | The Input Selector TAPE 1 button is pressed.<br>(The TAPE 1 indicator lights in the display.) | Switch the input selector to the source other than TAPE 1. |
| Graphic equalizer recording is impossible in the VIDEO DUBBING mode. | The AUDIO INJECTION key is not pressed ON. | Press the AUDIO INJECTION key to ON.<br>Check that the AUDIO INJECTION indicator lights up, then press the EQ REC key. |
| No sound is heard with the Speaker Selector set to the "A+B" position. | A pair of speakers is not connected to the A or B speaker terminals. | Connect the two pairs of speakers correctly to both A and B speaker terminals. Or, switch the Speaker Selector to A or B position to which the speakers are connected. |
| No sound from the rear speakers. | ● Surround switch is set to OFF.<br>● When the volume of the front speakers is set at the lower level, the volume level of the rear speakers is indicated at the further lower level.<br>● Monaural source is used. | ● Press the Surround key ON.<br>● Adjust the volume level of the rear speakers to its positive side.<br>● Change the playback source to the stereo or surround source. |
| Remote control does not function. | ● Batteries are not loaded. Or batteries are exhausted.<br>● The remote sensor is obstructed. | ● Replace the batteries with new ones.<br>● Remove the obstacle from the remote sensor. |
| **Occurs during AM reception only** | **Cause** | **Remedy** |
| High-frequency whistle especially at night. | Interference from TV set. | Turn off TV set, if problem disappears try relocating TV set. |
| Intermittent buzz or cracking sound. | Lightning.<br>Fluorescent lamps starting.<br>Appliance or furenance starting. | No remedy.<br>Try reversing AC plug.<br>Try reversing AC plug. |
| **Occurs during FM reception only** | **Cause** | **Remedy** |
| Hiss that gets worse in stereo reception. | Very weak antenna input signal. | Consider an outdoor antenna installation. In areas remote from the transmitter a 5 to 8 element antenna designed exclusively for FM is suggested. |
| Rhythmic static or popping noises. | Automobile ignition noise, especially evident when receiving weak signals. | Review antenna installation. Site the antenna as far from the street as possible and use coaxial cable. |
| STEREO indicator fails to light during stereo broadcast. | Another possible effect of a very weak signal. | Antenna system needs attention (see above). |

## KR-V87R
## AUDIO SECTION

### Power Output

**80 watts per channel minimum RMS, both channel driven at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.008% total harmonic distortion**

**(Rear)**
**10 watts per channel minimum RMS, both channel driven at 8 ohms at 1kHz with no more than 0.9 % total harmonic distortion**
**(Front)**
**90 watts per channel minimum RMS, both channel driven into 8 ohms at 1kHz with no more than 0.008 % total harmonic distortion**

| | |
|---|---|
| **Total Harmonic Distortion** | |
| **(1 kHz, 8 ohms)** | 0.002 % at 80 W |
| **Intermodulation Distortion** | 0.008 % at 80 W |
| **Input Sensitivity/Impedance** | |
| **PHONO (MM)** | 2.5 mV/47 kohms |
| **CD, AUX, TAPE, VIDEO** | 200 mV/47 kohms |
| **Frequency Response** | |
| **TAPE, CD, AUX, VIDEO** | 10 Hz – 100,000 Hz $^{+0\ dB}_{-3\ dB}$ |
| **Signal to Noise Ratio** | |
| **PHONO (MM)** | 73 dB |
| **CD, AUX, TAPE, VIDEO** | 100 dB |
| **Graphic Equalizer** | |
| **Center Frequency** | 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz |
| **Control Range** | ±12 dB |

### VIDEO SECTION

| | |
|---|---|
| **Inputs/Outputs VIDEO 1,2** | 1 Vp-p, 75 ohms unbalanced |

### FM TUNER SECTION

| | |
|---|---|
| **Tuning Frequency Range** | 87.5 MHz – 108 MHz |
| **Antenna Impedance** | 75 ohms unbalanced |
| **Usable Sensitivity** | 10.8 dBf (0.95 μV) |
| **50 dB Quieting Sensitivity** | |
| **MONO** | 14.2 dBf (1.4 μV) |
| **STEREO** | 37.2 dBf (20 μV) |
| **Signal to Noise Ratio at 65 dBf** | |
| **MONO** | 78 dB |
| **STEREO** | 72 dB |
| **Total Harmonic Distortion at 1,000 Hz** | |
| **MONO** | 0.2 % |
| **STEREO** | 0.3 % |
| **Frequency Response** | 30 Hz – 15,000 Hz $^{+0.5\ dB}_{-2.5\ dB}$ |
| **Stereo Separation** | 40 dB at 1,000 Hz |
| **Selectivity** | 53 dB at 400 kHz |
| **Capture Ratio** | 1.2 dB |
| **Image Rejection Ratio** | 40 dB |
| **IF Rejection Ratio** | 86 dB |
| **Spurious Rejection Ratio** | 80 dB |
| **AM Suppression Ratio** | 57 dB |

### AM TUNER SECTION

| | |
|---|---|
| **Tuning Frequency Range** | |
| **530 kHz – 1,610 kHz** | |
| **(with the AM tuning interval set at 10 kHz)** | |
| **531 kHz – 1,602 kHz** | |
| **(with the AM tuning interval set at 9 kHz)** | |
| **Usable Sensitivity** | 10 μV/(400μV/m) |
| **Signal to Noise Ratio** | 50 dB |
| **Total Harmonic Distortion** | 0.3 % |
| **Selectivity** | 25 dB |

### GENERAL

| | |
|---|---|
| **Power Consumption** | 3.2A... USA Model/200W... Others |
| **Dimensions** | 420(W) × 129(H) × 322(D)mm (16-9/16"×5-1/16"×12-11/16") |
| **Weight (Net)** | 8.2 kg (18.1 lb) |

## KR-V77R
## AUDIO SECTION

### Power Output

**70 watts per channel minimum RMS, both channel driven at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion**

**80 watts per channel minimum RMS, both channel driven at 8 ohms at 1kHz with no more than 0.03 % total harmonic distortion**

| | |
|---|---|
| **Total Harmonic Distortion** | |
| **(1 kHz, 8 ohms)** | 0.007 % at 70 W |
| **Intermodulation Distortion** | 0.03 % at 70 W |
| **Input Sensitivity/Impedance** | |
| **PHONO (MM)** | 2.5 mV/47 kohms |
| **CD, AUX, TAPE, VIDEO** | 200 mV/47 kohms |
| **Frequency Response** | |
| **TAPE, CD, AUX, VIDEO** | 10 Hz – 70,000 Hz $^{+0\ dB}_{-3\ dB}$ |
| **Signal to Noise Ratio** | |
| **PHONO (MM)** | 73 dB |
| **CD, AUX, TAPE, VIDEO** | 100 dB |
| **Graphic Equalizer** | |
| **Center Frequency** | 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz |
| **Control Range** | ±12 dB |

### VIDEO SECTION

| | |
|---|---|
| **Inputs/Outputs VIDEO 1,2** | 1 Vp-p, 75 ohms unbalanced |

### FM TUNER SECTION

| | |
|---|---|
| **Tuning Frequency Range** | 87.5 MHz – 108 MHz |
| **Antenna Impedance** | 75 ohms unbalanced |
| **Usable Sensitivity** | 10.8 dBf (0.95 μV) |
| **50 dB Quieting Sensitivity** | |
| **MONO** | 14.2 dBf (1.4 μV) |
| **STEREO** | 37.2 dBf (20 μV) |
| **Signal to Noise Ratio at 65 dBf** | |
| **MONO** | 78 dB |
| **STEREO** | 72 dB |
| **Total Harmonic Distortion at 1,000 Hz** | |
| **MONO** | 0.2 % |
| **STEREO** | 0.3 % |
| **Frequency Response** | 30 Hz – 15,000 Hz $^{+0.5\ dB}_{-2.5\ dB}$ |
| **Stereo Separation** | 40 dB at 1,000 Hz |
| **Selectivity** | 53 dB at 400 kHz |
| **Capture Ratio** | 1.2 dB |
| **Image Rejection Ratio** | 40 dB |
| **IF Rejection Ratio** | 86 dB |
| **Spurious Rejection Ratio** | 80 dB |
| **AM Suppression Ratio** | 57 dB |

### AM TUNER SECTION

| | |
|---|---|
| **Tuning Frequency Range** | |
| **530 kHz – 1,610 kHz** | |
| **(with the AM tuning interval set at 10 kHz)** | |
| **531 kHz – 1,602 kHz** | |
| **(with the AM tuning interval set at 9 kHz)** | |
| **Usable Sensitivity** | 10 μV/(400μV/m) |
| **Signal to Noise Ratio** | 50 dB |
| **Total Harmonic Distortion** | 0.3 % |
| **Selectivity** | 25 dB |

### GENERAL

| | |
|---|---|
| **Power Consumption** | 3.2A... USA Model/200W... Others |
| **Dimensions** | 420(W) × 129(H) × 322(D)mm (16-9/16"×5-1/16"×12-11/16") |
| **Weight (Net)** | 8.2 kg (18.1 lb) |

**Note:**
We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.